between first and second nodes wherein said acknowledgment packets are transmitted from [an upstream] a transmit queue [in an upstream transmitter] of said first node to [a selected receiver node] said second node, and wherein said acknowledgment packets include information indicative of sequences of successive payload packets transmitted from said second node and successfully received by said first node, said method comprising [the steps of]:

transmitting [selected amounts] a sequence of [data] payload packets from a transmit queue [in a first] of said second node to [a second] said first node,

generating [acknowledgments of data received] acknowledgment packets at said first node that indicate by sequence number a sequence of payload packets transmitted by said second node and successfully received by said first node,

eliminating from the transmit queue of the [second] first node [data acknowledgments] acknowledgment packets having a sequence number embraced by a sequence number [which are redundant] of other [acknowledgments] acknowledgment packets in [said second] the transmit queue of said first node, and

filling open transmit queue spaces at said first node with additional data.

26. (Amended) In a [full-duplex] two way asymmetric network communication system for transferring information between a [host] server and a plurality of remote

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clients over a shared medium and wherein said remote clients include [respective] remote [link adapters] interfaces for receiving high speed downstream information from said [host] server over said shared medium and for transmitting lower speed return information over an upstream channel, and wherein said network communication system includes a [hybrid access system for providing interactive network sessions in] network management unit located at a headend of a broadcast facility for controlling switching/routing functions for both said downstream and upstream communication channels,

a method of transmitting data from an upstream transmit queue [in] of an upstream transmitter node to a selected receiver node located at a receiving end of said network, said method comprising [the steps of]:

transmitting selected amounts of packet data from a transmit queue in said transmitter node to said receiver node wherein said receiver node includes a transmit queue for transmitting acknowledgments to a transmitter node,

generating acknowledgments of sequences of [packet] data packets received by said receiver node, said acknowledgments being indicative of the highest sequence number of successfully received data packets,

eliminating from the transmit queue of the receiver node [packet data] acknowledgments which are [redundant of other packet data] embraced by other acknowledgments in [said second] the transmit queue of said receiver node, and

filling open transmit queue spaces with additional packet data.

27. (Amended) In a [full-duplex] two way asymmetric network communication system for transferring information between a host [server] and a plurality of remote clients over a shared medium and wherein each of said remote clients includes [respective remote link adapters] interfaces for receiving high speed downstream information from said host server over said shared medium and for transmitting lower speed return information over an upstream channel and wherein said network communication system includes a [hybrid access system for providing interactive network sessions in] network management unit located at a headend of a central information distribution facility for managing switching/routing functions of both said downstream and upstream communication channels,

a method of reducing upstream data transmission, the method comprising [the steps of]:

at a receiver node having a transmit queue,

(a) receiving a data packet from an upstream transmitter;

(b) generating an acknowledge packet indicating receipt of all data packets in a sequence of packets up to and including said received data packet;

(c) inserting said acknowledge packet into said transmit queue; and

(d) removing from said transmit queue [redundant] acknowledge packets that indicate a sequence of receive packets which is embraced by other acknowledgment packets in said transmit queue.

28. (Amended) [A] The method as in claim 27 further comprising [the step of]

(e) filling open transmit queue spaces with additional data packets.

Claims 29-30, line 1, change "A" to --The--.

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31. (Amended) [A] The method as in claim 30 wherein said [step of] generating comprises [the step of]:

obtaining the header from said received data packet, and wherein [said step of] said removing redundant acknowledge packets comprises [the step of]:

[comparing] analyzing the header of the received data packet with headers of other data packets in the transmit queue to determine overlap acknowledgments of received packets.

Please add the following new claims:

--38. In an asymmetric network communication system that includes a host computer, plural remote devices and a shared medium for conveying data among said host computer and said plural remote devices, said system including a network management unit centrally located at a data distribution facility for enabling said host computer to transmit data packets to said plural remote devices over a downstream channel that lies in said shared medium in accordance with a downstream channel protocol and for enabling said plural remote devices to transmit data packets to said host computer over plural upstream channels in accordance with an upstream channel protocol,

a method of transmitting data packets from a transmit queue at a transmitting end of the system to a selected receiver node located at a receiving end of the system, wherein said data packets include identifying indicia for uniquely identifying respective ones of said data packets and said receiver node including a return-transmit queue for returning to said transmitting end acknowledgment packets that specify sequences of data packets successfully received by said receiver node, said method comprising:

transmitting sequences of data packets from said transmit queue to said receiver node;

generating and queuing in said return-transmit queue of said receiver node acknowledgments of sequences of data packets successfully received by said receiver node;

eliminating from said return-transmit queue acknowledgments that contain information indicative of information inclusive of other acknowledgments in said return-transmit queue; and

filling with additional data packets open transmit queue spaces formed in said return-transmit queue by said step of eliminating.

34. (New) The method as in claim 33 wherein

said downstream channel comprises a channel within a wireless broadcast network; and

said upstream channels comprises a selected one of a wireless return network, a telephone network and a router return network that operates at lower speeds than said downstream channel.

35. An asymmetric communication system for enabling communication between a host computer and plural remote clients over a shared medium, said system comprising:

upstream and downstream channels that operate at one of different respective

speeds and under different protocols;

said plural remote clients being in communication with the host computer over said shared medium wherein said host computer transmits data packets via a transmit queue to said plural remote clients over said downstream channel according to a downstream channel protocol and said plural remote clients transmit data packets to said host computer over said upstream channels according to upstream channel protocols; and

a system manager located at a central data distribution facility for managing both said upstream and downstream channels, said system manager being operable:

for effectuating transmission of data packets from said transmit queue at a transmitting end of the system to a selected receiver node located at a receiving end of the system, wherein said data packets include indicia for uniquely identifying respective data packets, and wherein said receiver node includes a return-transmit queue for holding acknowledgment packets for transmission to said transmitting end, said acknowledgment packets identifying data packets successfully received by said receiver node,

for effectuating generation and queuing in said return-transmit queue acknowledgments of data packets successfully received by said receiver node,

for effectuating elimination from the return-transmit queue data packets

acknowledgments that contain information indicative of information contained in other data packets acknowledgments in said return-transmit queue, and

for effectuating filling open return-transmit queue spaces with additional data packets.

17/ 36. The system as recited in claim 35 wherein said shared medium of said downstream channel comprises one of a wireless broadcast network, a direct broadcast satellite network and a CATV network, and said upstream channel comprises one of a wireless return network, a PSTN, a return-on-cable network and a router return network.

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13/ 37. A packet delivery system comprising:

at least one server;

upstream and downstream channels wherein said downstream channel includes a shared medium;

a plurality of remote devices in communication with said at least one server over the shared medium, wherein said at least one server transmits packets to said plural remote devices over said downstream channel according to a high-speed downstream channel protocol and said plural remote devices transmit packets to said at least one server over said upstream channels according to a lower-speed upstream channel

protocol; and

a network manager located at a central facility for managing both said upstream and downstream channels in order

for effectuating transmission of data packets from a transmit queue at a transmitting end of the system to a selected receiver node located at a receiving end of the system, wherein said data packets include indicia for uniquely identifying respective data packets and wherein said receiver node includes a return-transmit queue for returning to said transmitting end acknowledgment packets that identify successfully received data packets, said network manager further being operable

for effectuating transmission of selected data packets from the transmit queue to said receiver node,

for effectuating generation of acknowledgments of data packets successfully received by said receiver node,

for queuing in said return-transmit queue said generated acknowledgments,

for effectuating elimination from the return-transmit queue of the receiver node data packet acknowledgments that contain information indicative of information contained in other data packets acknowledgments in said return-transmit queue, and